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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,145	09/09/2003	David Alexander	IMMR023/04US	1899

22903 7590 12/13/2004

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EXAMINER

SOTOMAYOR, JOHN

ART UNIT	PAPER NUMBER
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3714

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,145

Applicant(s)

ALEXANDER ET AL.

Examiner

John L. Sotomayor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-20 is/are allowed.
- 6) ☒ Claim(s) 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. In response to the amendment filed September 15, 2004, claims 1-11 are canceled and newly added claims 12-33 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Each of the above claims recites a “manipulandum” as a device used in the system. However, the instant specification does not set forth either a direct reference to a manipulandum, or a definition of the term and is thus not enabled for this term. For purposes of examination the Examiner interprets the term, “mainpulandum”, as an item the user manipulates which is not specifically limited to a medical instrument. The Examiner would also like to point out that configuring this device as a medical instrument is simply intended use and, therefore, is given little patentable weight.

Claim 33 is rejected as it inherits the deficiencies of the parent claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 21-25 and 27-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuwabara et al (US 4,423,428).

Regarding claim 21, Kuwabara et al discloses a method of capturing a peripheral device into a capture mechanism configured to engage the peripheral device (fig 2), automatically engaging the peripheral device based on a first movement of the device and releasing the peripheral device based on a second movement of the device (Col 3, line 45 – Col 4, line 3).

Regarding claim 22, Kuwabara et al discloses a method of capturing a peripheral device into a capture mechanism where engaging the peripheral device includes frictionally engaging the peripheral device (Col 3, lines 60-67).

Regarding claims 23-25, Kuwabara et al discloses a method of capturing a peripheral device into a capture mechanism includes engaging the peripheral device using a plurality of jaws (claim 23), the plurality of jaws configured to open and close based on the movement of a lever (claim 24), and mechanically actuating a lever to open and close a plurality of jaws (claim 25) (Figs 3, 4a and 4b).

Regarding claims 27-28, Kuwabara et al discloses a method of capturing a peripheral device into a capture mechanism that includes inserting the peripheral device into a tubular

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member having cross-sectional dimension, moving a spring from a first position to a second position, reducing the cross-sectional dimension based upon the movement of the spring, frictionally engaging the peripheral device with the tubular member while the cross-sectional dimension is reduced, and releasing the peripheral device by increasing the cross-sectional dimension of the tubular member (Fig 3, Col 3, line 50 – Col 4, line 3).

Regarding claims 29 and 30, Kuwabara et al discloses an apparatus comprising a grasping member configured to engage an elongate peripheral device (fig 3), an actuator configured to reduce a cross-sectional dimension of the grasping member, and a spring assembly coupled to the grasping member and configured to change a dimension of the grasping member to frictionally engage the elongate peripheral device (Col 3, line 50 – Col 4, line 3 and Fig 3).

Regarding claim 31, Kuwabara et al discloses an apparatus comprising a plurality of jaws moveable between a first position and a second position based upon forces applied by the actuator (Fig 4a and b).

Regarding claim 32, Kuwabara et al discloses an apparatus comprising a plurality of jaws having a first end portion configured to receive a peripheral device, a collet expander with a conical first end configured to engage the plurality of jaw and maintain the jaws in an open position, the collet expander being moveable between a first position and a second position, a lever configured to receive an activating force from the actuator, and a spring configured to bias the collet expander to close the jaws when moved from a first position to a second position (Fig 3, Col 3, line 50 – Col 4, line 3).

Allowable Subject Matter

5. Claims 12-20 are allowed. The prior art does not teach or suggest a capture mechanism configured to engage a peripheral device, the capture mechanism having a grasping member and an actuator, the actuator being configured to actuate the grasping member in response to a movement of the peripheral device, the coupling mechanism being configured to move in response to the movement of the peripheral device when the peripheral device is engaged by the capture mechanism and a sensing assembly configured to detect a manipulation of the peripheral device while the peripheral device is engaged by the capture mechanism.

Claims 26 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed September 15, 2004 have been fully considered but they are not persuasive. As the Examiner has recited in the above office action, the inclusion of the term "manipulandum" is not enabled in the specification and the claims are treated according to the broadest definition of the term which is a device that may be manipulated by a user. By this definition, the Kuwabara reference still recites the structural claim limitations in the most recent response. In addition, although it was stated in the referenced interface summary that the recitation of a *medical device* (emphasis added) would likely overcome the cited reference, simply configuring a user manipulatable device as a medical device simply recites an intended use for the device and thus is given little patentable weight.

Therefore, applicant's arguments are unpersuasive and the rejection is maintained.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rosenberg et al (US 6,057,828) for a discussion of a plurality of user manipulatable devices used in a medical simulation system that uses force feedback to inform the user as to proper use during simulation exercises.

Martin et al (US 6,104,382) for a discussion of force feedback transmission mechanisms including manipulandum type devices.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Sotomayor whose telephone number is 571-272-4456. The examiner can normally be reached on 6:30-4:00 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jls
December 7, 2004



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